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XXVI.—*Notes on the Resident and Migratory Birds of Madeira and the Canaries.* By F. DU CANE GODMAN, F.Z.S. &c.

[Concluded from p. 177.]

40. *CALANDRELLA BRACHYDACTYLA* (Leisl.).

Alauda arvensis, W. & B. Orn. Can. p. 17; Bolle, J. für Orn. 1854, p. 455.

A. brachydactyla, Bolle, J. für Orn. 1857, p. 290.

Bolle says the Short-toed Lark is found in the eastern islands Lanzarote and Fuerteventura, and less commonly in Teneriffe and Gran Canary. The same authority also says it is this species, and not *A. arvensis*, which occurs in the Canaries. *A. arvensis* is mentioned amongst the occasional visitors in Madeira. I did not meet with either.

41. *EMBERIZA CITRINELLA*, Linn.

Emberiza citrinella, W. & B. Orn. Can. p. 18; Bolle, J. für Orn. 1854, p. 455.

I insert this species on the authority of Webb and Berthelot, who give as its habitat the island of Teneriffe. Bolle seems to doubt its being stationary. It did not fall under my notice.

42. †EMBERIZA MILIARIA (Linn.).

Emberiza miliaria, W. & B. Orn. Can. p. 18; Bolle, J. für Orn. 1854, p. 455, and 1857, p. 291.

One of the commonest species in the Canaries, where it frequents cultivated land in large flocks. I believe it is not found in Madeira.

43. †PYRGITA PETRONIA (Linn.).

Fringilla petronia, W. & B. Orn. Can. p. 19; Bolle, J. für Orn. 1854, p. 456, and 1857, p. 310; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Exceedingly abundant near the coast and about cultivated lands and gardens. It even frequents the towns; but breeds in societies in holes in cliffs. I think it is more common in the Canaries than in Madeira.

44. †PASSER SALICICOLA, Vieill.

Passer hispaniolensis, Temm.; W. & B. Orn. Can. p. 19; Bolle, J. für Orn. 1854, p. 456, and 1857, p. 305.

I have specimens of this Sparrow from Palma, in Gran Canary, where it is not uncommon. Webb and Berthelot, and Bolle, say it is abundant in Lanzarote and Fuerteventura. It does not appear to go so far westward as Teneriffe. *P. domesticus* has been occasionally met with in Madeira.

45. †FRINGILLA TEYDEA, Webb & Berthelot.

Orn. Can. p. 20; Bolle, J. für Orn. 1854, p. 456, and 1857, p. 312.

Soon after landing in Teneriffe I made inquiries about this bird, but found the people knew little or nothing about it. They also told me that strange birds, killed in the mountain-forests, did not belong to the island, but were "Pajaros de Africa," and it would be of no use to search for it there. However, I determined to look for it in the pine-forests, high up the mountain, where Webb and Berthelot procured the pair from which the species was described. Accordingly I made an early start one morning from La Guanche, with a guide who knew the forest-paths, and at daylight I found myself in a dense wood of young pines (*Pinus canariensis*). Through this we ascended

for about an hour, when the trees became larger. We had got nearly through this belt of trees, and were coming to the open space at the foot of the volcanic cone, where only a few retama bushes are to be found, when I suddenly heard a loud note of a strange bird at some distance to the left of the track. I immediately went in pursuit, gun in hand, and returned in about five minutes, having killed a fine specimen of the bird I was in search of. I spent the whole day wandering about in the upper part of this forest, and killed some seven or eight specimens. Even here it is not very common; and I believe it seldom or never goes lower down. It feeds on the seeds of the pine, and breaks up the cone with its powerful beak in order to get at them, reminding me of the Crossbill. Later in the year it frequents the cañadas, where it feeds on the seeds of the retama, which at the time I was there was only in bloom. I afterwards saw more of them in the pine-forest above Chasna, and procured other specimens. Mr. Crotch tells me that when he was encamped on the cañadas collecting coleoptera, he procured a nest with eggs; the latter, he says, more resemble those of a Shrike than any of the Finches. The nest, I believe he told me, was built in a retama bush. It is known to the goatherds, who tend their flocks in the highest parts of the mountain, by the name of "Pajaro de la cumbre."

46. †FRINGILLA TINTILLON, Webb & Berth.

Orn. Can. p. 21; Bolle, J. für Orn. 1854, p. 457, and 1857, p. 315; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Having now gathered together a good series of the Chaffinches from each of the three Atlantic groups of islands, the Azores, Madeira, and Canaries, I have carefully compared the specimens, and have no hesitation in saying that there is but one species common to all. In each group I find slight variations of colour among the individuals. The tail-feathers in some are much whiter than in others; also the green on the back is of much greater extent in some than in others; there is, too, a slight variation in the size of the beaks; but I can find no differences which are characteristic of the birds of any one group of islands. It is a very

common species, though in the Canaries it seems seldom to descend lower than 2000 feet above the sea. In habits it is very like our Chaffinch (*F. cælebs*); and, like it, the number of males seems greatly to exceed that of the females. It builds a larger and more clumsy nest than our bird; its eggs are a little larger, but much resemble them in colouring.

47. †*LINOTA CANNABINA* (Linn.).

Fringilla cannabina, W. & B. Orn. Can. p. 22; Bolle, J. für Orn. 1854, p. 459, and 1857, p. 317; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Found in Madeira and the Canaries abundantly; it does not occur in the Azores. Unlike the continental Linnet, the male retains the red breast all the winter; in other respects it does not differ. It is found principally in the open fields.

48. †*ACANTHIS CARDUELIS* (Linn.).

Fringilla carduelis, W. & B. Orn. Can. p. 22; Bolle, J. für Orn. 1854, p. 459; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Carduelis elegans, Bolle, J. für Orn. 1857, p. 318.

The Goldfinch is very common, both in Madeira and the Canaries, but is not found in the Azores. It does not differ from our European bird.

49. *CHRYSOMITRIS SPINUS* (Linn.).

Fringilla spinus, W. & B. Orn. Can. p. 23; Bolle, J. für Orn. 1854, p. 459.

Chrysomitris spinus, Bolle, J. für Orn. 1857, p. 317.

Recorded by Webb and Berthelot from Teneriffe, where, however, I did not see it. Bolle says it nests in the pine-woods in the mountain-region.

50. †*SERINUS CANARIUS* (Linn.).

Fringilla canaria, W. & B. Orn. Can. p. 21; Bolle, J. für Orn. 1854, p. 457; Heineken, Zool. Journ. v. p. 70.

Serinus canarius, Bolle, J. für Orn. 1858, p. 125.

Fringilla butyracea, Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

The wild Canary of the Atlantic islands is the original stock

of the yellow domesticated variety so well known throughout Europe, and so much prized for its song, in which respect the latter is certainly superior to its wild ancestor. It is exceedingly common in the Canaries, Madeira, and Azores, and is captured in each and sold in large numbers. It feeds chiefly on seeds, and is very destructive in the cultivated land. The cock birds delight to fly some height in the air, to descend perpendicularly with outstretched wings, and to alight on the highest branch of a tree, singing all the time like some of the Larks. The female builds her nest of moss lined with wool, and places it in a low tree or bush; she lays from four to six eggs, which are like those of the Serine (*Serinus hortulanus*), only rather larger.

51. PYRRHULA GITHAGINEA (Licht.).

W. & B. Orn. Can. p. 19; Bolle, J. für Orn. 1854, p. 459, and 1857, p. 319.

Both the above authorities say this Bullfinch is not uncommon in the two eastern islands, Lanzarote and Fuerteventura; but as I was unable to visit either of these islands, I did not meet with it. I do not believe it is found further west.

52. STURNUS VULGARIS, Linn.

W. & B. Orn. Can. 11; Bolle, J. für Orn. 1854, p. 452, and 1857, p. 277; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

According to Bolle the Starling is a regular winter visitant to the pine woods of Teneriffe; it is less commonly seen in Fuerteventura. Perhaps, as it does not breed in the islands, it might more properly be placed amongst the accidental stragglers. Webb and Berthelot consider it occasional in Canaries; and Vernon Harcourt gives it in his list of stragglers to Madeira. In the Azores it is a common and resident species.

53. †CORVUS CORAX, Linn.

W. & B. Orn. Can. p. 9; Bolle, J. für Orn. 1854, p. 450, and 1857, p. 275; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Everywhere abundant in the Canarian group, where it may sometimes be seen in large flocks. Its habits are the same as in other parts. In Madeira it only occurs occasionally.

54. †PYRRHOCORAX GRACULUS (Linn.).

Pyrrhocorax alpinus, Vieill. ; W. & B. Orn. Can. p. 10.

Corvus graculus, Bolle, J. für Orn. 1854, p. 451.

Fregilus graculus, Bolle, J. für Orn. 1857. p. 277.

It is singular that this bird, which is so very common in the island of Palma, should not occur elsewhere in the archipelago. It breeds in the clefts of the walls of the old crater. I can detect no difference between the Palma birds and those I have in my collection from other parts of Europe.

55. †COLUMBA TROCAZ, Heineken.

Brewster's Journ. 1829, p. 228 ; Jard. & Selb. Ill. Orn. pl. 98.

Trocaza trocaz, Bp. Consp. ii. p. 45 (partim) ; Vern. Harc. Ann. & Mag. Nat. Hist. 1853, xii. p. 58.

Columba laurivora, W. & B. Orn. Can. p. 26, t. 3 (upper fig.).

Trocaza bouvryi, Bp. Compt. Rend. xliii. pp. 837, 948 (1856) ; Icon. des Pig. t. 70.

Hab. Madeira.

This species is readily distinguishable by its large size, and also by the silvery white semicircular patch which extends round the back of the neck to each side.

The synonymy of the large Pigeons of the Atlantic Islands is involved in great confusion ; and no author, so far as I am aware, has as yet assigned to their proper owners the various names that have been given. To make this clear I will trace the history of the synonymy throughout.

Dr. Heineken, in Brewster's Journal of Science, 1829, p. 228, in a short paper on the birds of Madeira, described the Pigeon found in that island as *Columba trocaz* ; and this is the earliest scientific notice we find of these birds. It therefore follows that the name that must stand for the Madeira bird is COLUMBA TROCAZ, Heineken. Specimens of this same bird were afterwards sent from Madeira to Messrs. Jardine and Selby, and were figured in their 'Illustrations of Ornithology,' pl. 98, under Dr. Heineken's name.

We now come to Webb and Berthelot's 'Ornithologie Canarienne,' where the Pigeon of the western group of the Canary Islands and that of Madeira are confounded together under the

name *Columba laurivora*, which name is intended to supplant the less classical appellation of *C. trocaz* of Dr. Heineken. Two errors were here committed—one in placing two very distinct birds under the same name, the other in the endeavour to alter a name already established. In dealing with these errors, however, we are still able to use the name *laurivora*, by applying it to the bird found in the *first mentioned* of the localities cited by Webb and Berthelot, viz. the Canaries.

We thus have a name for the Madeira bird about which there can be no doubt, and also a name for a Pigeon from the Canaries. Webb and Berthelot's plate shows us what this latter bird is. The upper figure undoubtedly represents *Columba trocaz* of Heineken; the lower, as I now interpret the plate, *Columba laurivora*, Webb and Berthelot.

Bonaparte, in his 'Conspectus Avium,' ii. p. 45, considers that both Heineken's bird and that of Webb and Berthelot belong to one species, which he calls *Trocaza trocaz*, to which the locality "Ins. Madeira" is assigned, the mention of the Canaries by Webb and Berthelot being overlooked. This view, however, is altered in the 'Comptes Rendus,' xliii. (1856), pp. 837, 948, where Prince Bonaparte justly considers that the birds figured in the plate of the 'Ornithologie Canarienne' belong to two species. He applies the name *Trocaza bouvryi* to the upper figure, retaining that of *laurivora* for the lower. The former name must therefore be placed as a synonym of *C. trocaz*. Both the species are figured in the 'Iconographie des Pigeons,' tt. 69, 70, *C. laurivora* being also figured by Knip, t. 43.

Dr. Bolle, in his first paper in the 'Journal für Ornithologie,' 1855, p. 171, appears to have followed previous authors in confusing the Canarian with the Madeiran bird. He obtained no specimens, though he says he saw what he calls the smaller bird in Palma. In his second article in the same journal (1857, p. 324, *et seq.*), two species are recognized. The first is called *Columba laurivora*; and it would appear that this name is applied to Webb and Berthelot's bird, as now restricted to the so-called female of those authors. The other is called, with doubt, *C. bouvryi*, Bp. But *C. bouvryi*, Bp., is *C. trocaz*, Hein., the Madeiran bird, the occurrence of which in the Canaries there is no

evidence to show. There appears, however, to be a second species in the Canaries, which is neither *C. trocaz* nor *C. laurivora*; and to this Dr. Bolle's remarks seem to apply. Of this bird more anon.

Lastly, Mr. G. R. Gray in his 'Hand-list of Birds,' ii. p. 233, recognizes two species, one from Madeira and one from the Canaries, and is so far right. There are errors in the synonymy, which will at once be detected by comparison with what is given below.

Columba trocaz frequents the high laurel-forests of Madeira, where it breeds, only coming down occasionally to feed in the cultivated lands. It is very shy, and not easily got at, even by the natives, who are acquainted with its habits. I was out after them for two or three days without getting a shot, though I saw several. The only plan is to go either early in the morning or late at night, and sit under the til trees (*Oreodaphne fœtens*) (which they frequent) and take the chance of their settling above your head without observing you. Even then they are not easily killed, as the foliage is so thick, and the trees so high, as well as being usually placed on such a steep slope of the mountain-side that, when shot, they sometimes fall more than 100 yards below you, smashing themselves to pieces in their fall; hence it is not easy to get good specimens for one's collection. I, however, finally procured eleven fair skins. They feed on the fruit of the bay and til trees, for which they search amongst the dead leaves upon the ground. The flesh has a strong flavour, in consequence of the aromatic nature of the food. *C. palumbus* is also found occasionally in Madeira—but, as I am told, frequents the chestnut-groves, and not the laurel-forests.

56. COLUMBA LAURIVORA, Webb & Berth.

Columba laurivora, W. & B. Orn. Can. p. 26, pl. 3 (lower fig.); Knip, Fig. t. 43; Bolle, J. für Orn. 1855, p. 171, and 1857, p. 324.

Trocaza laurivora, Bp. Icon. des Fig. t. 69.

There can be no doubt that the bird described as the female of their *Columba laurivora* by Webb and Berthelot has the extremity of the tail white. I have seen the type in the museum

of the Jardin des Plantes in Paris, and also the specimen referred to by Bonaparte in the British Museum. In both these examples this character is distinctly shown. The species is smaller than *C. trocaz* of Madeira, and is without the white on the neck so conspicuous in that bird. The vinous colouring, too, of the under plumage is not restricted to the breast, as in *C. trocaz*, but spreads downwards over the abdomen. The head, too, is tinged with iridescent green, and is less decidedly plumbeous than either of the other species.

I never met with any Pigeon in the Canaries exactly answering to Webb and Berthelot's plate and to the examples above referred to; but I heard by report of the existence of such a bird. At Tacaronte it goes by the name of "raboblanco." Pigeons are more numerous in Gomera, where this name is apparently applied to the same bird. The specimen in the British Museum came out of the Massena collection.

57. *COLUMBA BOLLII*, sp. nov.

Columba bouvryi, Bp. (?) Bolle, J. für Orn. 1857, p. 329 (?).

Plumbea, alis nigricantioribus: colli lateribus et dorso superiore viridescenti et purpurascenti iridescentibus: pectore et abdomine superiore vinaceo indutis: caudâ nigricante, fasciâ latâ subapicali plumbeâ transvittatâ: rostro et pedibus corallinis: long. tota 15 poll. angl., alæ 8·3, caudæ 6, rostri a rictu 1·2, tarsi 1·1, dig. med. cum ungue 1·6.

Fem. mari similis.

Hab. in insulâ Teneriffæ.

Obs. *C. laurivoræ* affinis, sed capite plumbeo, abdomine imo plumbeo nec vinaceo, caudâ transfasciatâ haud albido terminatâ, tarsi brevioribus et dig. med. minus elongato distinguenda. A *C. trocaz* statura minore et coloribus colli iridescentibus dignoscenda est.

For some time I was under the impression that this bird was not to be distinguished from the white-tailed one; but on a farther examination of the type specimen of *C. laurivora* in the Paris Museum, and on a close comparison of my skins with that in the British Museum, I have no doubt of there being two species of Wood-Pigeon in the Canaries. I procured, in all, nine skins, which include both sexes and young birds. The first I shot in a ravine above Orotava, where I had been told they

came to feed in the early morning upon the fruit of the laurel (*Persea indica*). There were three or four more in this flock; but though I watched for them afterwards for two or three days under the same tree, they would not come within shot. I saw this Pigeon also in the laurel-forest of Taraconte, where I spent a couple of days after them without success. I here, however, found three old nests, which the "Guarda" told me belonged to this Pigeon. They were either in the tree heath or laurel trees, about twenty feet from the ground, and built of sticks, much the same as our Wood-Pigeon's. I afterwards found this bird more abundant in the forest of Taganana, at the east end of the island, about 5000 feet above the sea, where I procured the rest of my specimens. It is a very shy bird; and the best way to get them is to hide under the laurel trees where it comes to feed. It is occasionally seen early in the morning, lower down upon the patches of corn, but always returns to the dark forests during the middle of the day, at which time they do not fly much unless disturbed. Those I killed had their crops full of the fruit of the *Persea indica*.

58. †COLUMBA LIVIA, Linn.

W. & B. Orn. Can. p. 27; Bolle, J. für Orn. 1855, p. 172, and 1857, p. 330; Vern. Harc. Ann. & Mag. N. H. ser. 2, 1855, xv. p. 437.

Very common in the Canaries, Madeira, and Azores; it is also abundant on the Desertas. It breeds in the cliffs over the sea. In all three groups of islands this species is very variable in colour. The greater part are exceedingly dark all over; some have white above the tail, while others want it; some are like ordinary Rock-Pigeons. I have also seen a few with white patches on the wings. It is possible these last may be escaped domesticated birds.

59. †COLUMBA AFRA, Linn.

W. & B. Orn. Can. p. 28; Bolle J. für Orn. 1855, p. 173, and 1857, p. 331.

Either this species or the common Turtledove comes to the eastern islands regularly every year. It arrives in spring, and breeds there, leaving again in autumn. I saw several about Tara-

conte in Teneriffe, but was unable to obtain specimens, and did not then distinguish it from *C. turtur*. Bolle seems uncertain to which species it should be referred. Vernon Harcourt says the last-mentioned species is found occasionally in Madeira.

60. *PTEROCLES ARENARIUS*, Temm.

Pterocles arenarius, W. & B. Orn. Can. p. 28; Bolle, J. für Orn. 1855, p. 173, and 1857, p. 332.

Inhabits only the plains of Fuerteventura, whence it occasionally passes to Gran Canary. It is usually shot at the drinking-places.

61. †*PERDIX RUFA*, Linn.

Perdix rufa, Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Is met with on the Serras of Madeira and in the Eastern Azores. In Canaries the following species takes its place:—

62. †*PERDIX PETROSA*, Lath.

W. & B. Orn. Can. p. 29; Bolle, J. für Orn. 1855, p. 173, and 1857, p. 333.

It is found in the Canaries only in the wooded ravines near the patches of cultivated land in the mountains, where sometimes from twelve to twenty birds may be killed by a sportsman in a day. The natives, however, catch them chiefly in snares when they come to drink. I have very frequently seen them exposed for sale in the market-place in Santa Cruz. It is said to be wanting in Lanzarote and Fuerteventura.

63. †*ORTYGION COTURNIX* (Linn.).

Perdix coturnix, W. & B. Orn. Can. p. 29; Bolle, J. für Orn. 1855, p. 173, and 1857, p. 334; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Very common in all three archipelagoes, where they are stationary all the year round. They are perhaps most abundant in the Western Azores, where I once shot seventy couples in one day.

64. *OTIS HOUBARA*, Gmel.

Otis houbara, W. & B. Orn. Can. p. 30; Bolle, J. für Orn. 1855, p. 174, and 1857, p. 334.

Berthelot says it is almost exclusively found in Fuerteventura, where it is said to breed. It is occasionally seen in Lanzarote.

65. †*ÆDICNEMUS CREPITANS*, Temm.

W. & B. Orn. Can. p. 32; Bolle, J. für Orn. 1855, p. 175, and 1857, p. 336; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Said to be found in all the Canary Islands. I found it tolerably abundant on a plain near the sea to the eastward of Port Orotava, in Teneriffe, where it breeds. Vernon Harcourt gives it in his list of stragglers in Madeira on Mr. Lowe's authority.

66. *CURSORIUS EUROPÆUS*, Lath.

Cursorius isabellinus, W. & B. Orn. Can. p. 31; Bolle, J. für Orn. 1855, p. 174, and 1857, p. 335.

Said by Webb and Berthelot to inhabit Lanzarote and Fuerteventura, and also the south-east coast of Gran Canary near Maspaloma. I did not, however, meet with it.

67. *HÆMATOPUS MOQUINI*, Bp.

Hæmatopus niger, W. & B. Orn. Can. p. 33; Bolle, J. für Orn. 1855, p. 175, and 1857, p. 337.

Occasionally seen on the coast of Teneriffe. It is said to breed in some of the deserted rocks on the coast of the eastern island. It is most probable that the South-African Black Oystercatcher is here referred to.

68. †*SCOLOPAX RUSTICOLA*, Linn.

W. & B. Orn. Can. p. 39; Bolle, J. für Orn. 1855, p. 157, and 1857, p. 338; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437; Heineken, Zool. Journ. v. p. 77.

Breeds in all the islands sparingly, and is stationary all the year. It inhabits the high wooded ravines.

69. *TELMATIAS GALLINAGO* (Linn.).

Scolopax gallinula, Linn.; W. & B. Orn. Can. p. 39; Bolle, J. für Orn. 1855, p. 177.

Scolopax gallinago, Linn.; Bolle, J. für Orn. 1858, p. 227; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Bolle says that the Snipe comes regularly in winter to the high lands, and is very common about Laguna, in Teneriffe.

I conclude it does not breed, being a winter migrant only ; but as it is said to come regularly I include it in the list. In his last paper, as quoted above, Bolle says that it is *S. gallinago*, and not *S. gallinula*, which is found in the Canaries ; and from all I heard I believe it is so, and that the Jack Snipe is not found there at all. I was not present at the right season of the year to verify this statement.

70. STREPSILAS INTERPRES (Linn.).

W. & B. Orn. Can. p. 34 ; Bolle, J. für Orn. 1855, p. 176, and 1857, p. 337.

This bird undoubtedly breeds in Flores, in the Azores, and, I think, probably in Canaries, where it is not uncommon in suitable places on the coast. As there is but little beach or low rocky coast, it finds but few places adapted to its habits. Webb and Berthelot consider its appearance only accidental.

71. †TOTANUS HYPOLEUCUS (Linn.).

Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Not mentioned by other writers as an inhabitant of the Canaries. I saw two or three pairs in Teneriffe, between Candelaria and Santa Cruz, during the breeding-season. I shot at and winged an individual of this species ; but before I could get it it ran under a large rock, where it was out of reach. I also saw it towards Anaga Point in the same island. I have little doubt that some few pairs nest along this shore.

72. TRINGA CINCLUS, Linn.

Tringa variabilis, Mey. ; W. & B. Orn. Can. p. 38 ; Bolle, J. für Orn. 1855, p. 176 ; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

I did not see this bird, though Webb and Berthelot say that it inhabits all the Canary Islands. Though a constant visitor, it is probably not resident.

73. †ARDEA CINEREA, Linn.

W. & B. Orn. Can. p. 35 ; Bolle, J. für Orn. 1855, p. 176 ; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 437.

Webb and Berthelot consider the Heron only "de passage accidental" in the Canaries. I saw some few pairs about the coast

of Teneriffe in the middle of May, and was told that they breed on the detached rocks near the coast—which is very probable, as they certainly do so in St. Michael's. It is said to be occasional only in Madeira.

74. STERNA CANTIACA, Gmel.

W. & B. Orn. Can. p. 41 ; Bolle, J. für Orn. 1855, p. 177.

Said to inhabit Lanzarote and Fuerteventura and to breed in Aleganza. I am not aware that it goes further westward in these islands.

75. †STERNA HIRUNDO, Linn.

W. & B. Orn. Can. p. 42 ; Bolle, J. für Orn. 1855, p. 177, and 1857, p. 341 ; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 438.

To be found in all the islands. It breeds on the Desertas and other small uninhabited islands.

76. †STERNA MINUTA, Linn.

W. & B. Orn. Can. p. 42 ; Bolle, J. für Orn. 1855, p. 177.

I saw the Little Tern in Teneriffe and also in Madeira. In the latter island a very young bird was brought me by a boatman, who killed it on the coast near Funchal. It was probably reared there, as the down on the head was protruding through the more mature feathers. Berthelot says that it inhabits Aleganza. It is not, however, included in Vernon Harcourt's list.

77. †LARUS ARGENTATUS, Brünn.

W. & B. Orn. Can. p. 42 ; Bolle, J. für Orn. 1855, p. 177, and 1857, p. 341 ; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 438.

In all the islands, and appears to be more common than the two following species.

78. †LARUS TRIDACTYLUS, Linn.

Bolle, J. für Orn. 1857, p. 341 ; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 438.

Both this and the following Gull probably breed about the coasts in Teneriffe. Bolle says the present species comes in winter. I saw either this species or *L. canus* in the middle of May in Teneriffe, though I failed to secure specimens.

79. †LARUS FUSCUS, Linn.

Not mentioned by Berthelot. I however saw pairs of this bird in May in Teneriffe, and in June in Madeira.

80. LARUS MARINUS, Linn.

W. & B. Orn. Can. p. 42; Bolle, J. für Orn. 1855, p. 177, and 1857, p. 341.

This, like the other Gulls included in their list, according to the above authorities, breeds in the island of Alegranza. I am not aware that I saw this Gull amongst the Canaries or in Madeira, though some birds of this species followed our vessel from Lisbon till we were nearly in sight of the latter islands.

81. THALASSIDROMA BULWERI, Jard. & Selb.

Thalassidroma columbinus, W. & B. Orn. Can. p. 44; Bolle, J. für Orn. 1855, p. 178.

T. bulweri, Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 438.

I found Bulwer's Petrel breeding in considerable numbers on the small Deserta. It appears so nocturnal in its habits that I never once saw it flying about in the daytime, though there were plenty of another, smaller species. The nests I found were for the most part low down at the foot of the cliffs under the fallen rocks, where the birds were easily caught with the hand while sitting on their eggs.

Several other smaller species are mentioned by different authors as inhabiting these seas: but as my expedition to the Desertas unfortunately proved a failure, I am unable to say which are to be considered resident. On leaving Funchal on my homeward passage, some small Petrels followed the vessel for a couple of days, which appeared to me to be *T. pelagica*. I also saw similar Petrels on my previous voyage from the Canaries to Cadiz in the month of May.

82. †PUFFINUS CINEREUS. }

83. †PUFFINUS ANGLORUM. }

84. †PUFFINUS OBSCURUS. }

Puffinus cinereus, *P. anglorum*, *P. obscurus*, W. & B. Orn.

Can. p. 43; Bolle, J. für Orn. 1855, p. 177, and 1857, p. 344; Vern. Harc. Ann. & Mag. Nat. Hist. ser. 2, 1855, xv. p. 438.

These three species are found in all the archipelagoes, and must undoubtedly breed in the Desertas or other neighbouring islands, as I saw them there in considerable numbers in the month of June. I failed to procure specimens.

85. *MERGULUS ALLE* (Linn.).

Alca minor, W. & B. Orn. Can. p. 41; Bolle, J. für Orn. 1855, p. 177.

Like many other sea-birds, this species is said to be more numerous in the eastern Canaries, though found occasionally throughout the group.

The above list comprises all the birds at present known to be resident or regular migrants in the Canaries and Madeira*. In a future paper I hope to make some further remarks upon the general features of the ornithology of the Atlantic Islands.

XXVII.—*Ornithological Observations in the Crimea, Turkey, Sea of Azov, and Crete, during the Years 1854–55; with Remarks on the Sivash, or Putrid Sea.* By GEORGE CAVENDISH TAYLOR, F.Z.S., late of the 95th Regiment.

THOUGH I have had this article in contemplation ever since our Journal was first started, a variety of causes have hitherto prevented me from carrying my idea into execution. These must be my excuse for introducing it to the readers of 'The

* Since the above article was in type my attention has been drawn to the bird described by Dr. Finsch as *Pyrrhulanda modesta* (J. f. Orn. 1864, p. 412), which is stated to be found in the Canaries. Though Dr. Finsch adheres to his opinion as to the distinctness of this bird from *P. nigriceps* of Gould, from the Cape-Verde Islands (see Trans. Zool. Soc. vii. p. 275), Dr. Cabanis takes the opposite view (J. f. Orn. 1868, p. 219). I have no further information to impart respecting the species, but must express the opinion that, as Dr. Finsch cites no authority in giving the Canaries as the origin of the single female specimen he described, it may turn out that the species is not Canarian at all, though it is by no means impossible that a species of *Coraphites* may be found in the islands of Fuerteventura and Lanzarote.